Title: SYSTEMS AND METHODS FOR DYNAMIC DETECTION AND PREVENTION OF ELECTRONIC FRAUD AND NETWORK INTRUSION

Abstract: The present invention provides systems and methods for dynamic detection and prevention of electronic fraud and network intrusion using an integrated set of intelligent technologies. The intelligent technologies include neural networks, multi-agents, data mining, case-based reasoning, rule-based reasoning, fuzzy logic, constraint programming, and genetic algorithms. The systems and methods of the present invention involve a fraud detection and prevention model that successfully detects and prevents electronic fraud and network intrusion in real-time. The model is not sensitive to known or unknown different types of fraud or network intrusion attacks, and can be used to detect and prevent fraud and network intrusion across multiple networks and industries.
(88) Date of publication of the international search report:
26 February 2004

For two-letter codes and other abbreviations, refer to the "Guidance Notes on Codes and Abbreviations" appearing at the beginning of each regular issue of the PCT Gazette.
INTERNATIONAL SEARCH REPORT

A. CLASSIFICATION OF SUBJECT MATTER

IPC 7 G06N3/04 G06F1/00 G06F17/60

According to International Patent Classification (IPC) or to both national classification and IPC

B. FIELDS SEARCHED

Minimum documentation searched (classification system followed by classification symbols)

IPC 7 G06N G06F

Documentation searched other than minimum documentation to the extent that such documents are included in the fields searched

Electronic database consulted during the international search (name of database and, where practical, search terms used)

EPO–Internal, WPI Data, PAJ, IBM–TDB, INSPEC

C. DOCUMENTS CONSIDERED TO BE RELEVANT

<table>
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<th>Category</th>
<th>Citation of document, with indication, where appropriate, of the relevant passages</th>
<th>Relevant to claim No.</th>
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<td>Y</td>
<td>column 1, line 29 – column 5, line 15 column 10, line 28 – column 12, line 61; figures 1–3</td>
<td>61,74,81</td>
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<td>Y</td>
<td>DENAULT S ET AL: &quot;INTRUSION DETECTION: APPROACH AND PERFORMANCE ISSUES OF THE SECURENET SYSTEM&quot; COMPUTERS &amp; SECURITY, ELSEVIER SCIENCE PUBLISHERS. AMSTERDAM, NL, vol. 13, no. 6, 1994, pages 495–508, XP000478665 ISSN: 0167–4048</td>
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<td>A</td>
<td>page 495, left-hand column, line 1 – page 503, left-hand column, line 2; figures 1–3</td>
<td>1,15,45, 55</td>
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[X] Further documents are listed in the continuation of box C.

[X] Patent family members are listed in annex.

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Date of the actual completion of the international search

15 December 2003

Date of mailing of the international search report

05/01/2004

Name and mailing address of the ISA

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Schenkels, P
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SYMPOSIUM ON RESEARCH IN SECURITY AND PRIVACY. OAKLAND, MAY 4-6, 1992, LOS ALAMITOS, IEEE COMP. SOC. PRESS, US,  
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ISBN: 0-8186-2825-1  
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| A        | **WO 98/32086 A (NORTHERN TELECOM LTD; BARSON PAUL COLIN (GB); HOBSON PHILIP WILLIAM ()) 23 July 1998 (1998-07-23)  
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